GALLUP®

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Global Financial Health Study: A 10-Country Survey to Measure Financial Security and Control
Technical Methodology Report

CONTENTS

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Introduction

Gallup set out to develop and implement a survey exploring various aspects of people's financial health. Drawing from the literature on this topic (see Appendix 2), measures of financial security and financial control are developed to give additional insights to the existing research on financial health. The overall goal of the study is, through the use of nationally-representative survey data, to investigate the relationships between the various aspects of financial health and develop a statistically valid measure of financial control. For this study, financial control is defined as the extent to which people perceive they are in control of and can influence their financial situation. The resulting data and evidence will give interested stakeholders unique insights into the financial health of residents in the countries under study.

Gallup conducted nationally representative surveys of at least 1,500 residents in 10 countries of varying levels of economic development: Bangladesh, Chile, Colombia, Greece, Kenya, Japan, South Korea, the United Kingdom, the United States and Vietnam.

Interviews were conducted face-to-face using Computer-Assisted Personal Interviewing (CAPI) handheld devices in Bangladesh, Chile, Colombia, Greece, Kenya and Vietnam. In Japan, South Korea, the U.K., and the U.S., interviews were conducted over the telephone using Computer-Assisted Telephone Interviewing (CATI). Samples were probability-based and nationally representative of the resident adult population. In all countries, the coverage area is the entire country including rural areas, and the sampling frame represents the entire civilian, non-institutionalised, aged 18 and older population. Exceptions include areas where the safety of interviewing staff is threatened, or areas that are difficult to access.

Methodology Overview for Each Country

Country	Interviewing Dates	Number of Interviews	Design Effect[a]	Margin of Error[b]	Mode of Interviewing	Languages	Geographic Exclusions
Bangladesh	Feb. 12 to March 6, 2018	1,500	1.32	2.9	Face-to-Face CAPI	Bengali	Due to an adverse law and order situation, four districts were excluded: Rangamati, Khagrachhari, Bandarban (hilly districts from Chittagong division) and Gaibandha (Rangpur division). The excluded areas represent approximately 3% of the population.
Chile	Feb. 9 to March 26, 2018	1,504	1.38	3.0	Face-to-Face CAPI	Spanish	Remote areas of Antarctica, Easter Island and the Juan Fernández Islands were excluded. The excluded areas represent less than 1% of the population of the country.
Colombia	Feb. 22 to March 20, 2018	1,504	1.51	3.1	Face-to-Face CAPI	Spanish	
Greece	Feb. 21 to March 24, 2018	1,500	1.23	2.8	Face-to-Face CAPI	Greek	
Japan	Feb. 7 to March 13, 2018	1,507	1.43	3.0	Landline and Mobile Telephone	Japanese	Landline RDD excluded 12 municipalities near the nuclear power plant in Fukushima. These areas were designated as not-to-call districts due to the devastation from the 2011 disasters. The exclusion represents less than 1% of the population.
Kenya	Feb. 15 to March 1, 2018	1,500	1.53	3.1	Face-to-Face CAPI	Swahili/Kiswahili, English	The following areas were excluded due to accessibility and/or security issues: Mandera county, Wajir county, Marsabit county, Baringo county, and Garissa county (except for some areas in Garissa and Lagdera district). The excluded areas represent approximately 8% of the population.
South Korea	Jan. 31 to March 23, 2018	1,503	1.51	3.1	Landline and Mobile Telephone	Korean	
United Kingdom	Feb. 5 to March 16, 2018	1,500	1.45	3.1	Landline and Mobile Telephone	English	
United States	Feb. 1 to March 11, 2018	1,508	1.46	3.0	Landline and Mobile Telephone	English, Spanish	
Vietnam	Jan. 13 to Feb. 1, 2018	1,540	1.40	3.0	Face-to-Face CAPI	Vietnamese	Eleven provinces (out of 63) were excluded from the frame because of social unrest and concerns for safety. The excluded areas represent approximately 19% of the population.

a) The design effect calculation reflects the weights and does not incorporate the intra-class correlation coefficients. Calculation: $n*$(sum of squared weights)/[(sum of weights)*(sum of weights)].

b) The margin of error is calculated around a proportion at the 95% confidence level. The maximum margin of error was calculated assuming a reported percentage of 50% and takes into account the design effect. Margin of error calculation: $\sqrt{(0.25/N)}*1.96*\sqrt{(DE)}$.

Questionnaire Development

Questionnaire Design

At the outset of the study, Gallup researchers conducted stakeholder interviews and a review of existing financial health and well-being studies to identify key themes and ideas. The results helped identify specific areas of interest to the MetLife Foundation and Gallup, and to develop the final questionnaire (see Appendix 1).

As with all of Gallup's multi-national surveys, questions were designed to be easily understood, avoiding idiomatic language in order to capture the necessary information while avoiding the potential for translation difficulties. Where possible, response options were kept to a simple binary format such as "yes/no" to lighten the cognitive burden on respondents and limit cultural influences on response styles that have been associated with scales and other less straightforward question formats.

Translation

The questionnaire is translated into the major conversational languages of each country. One of two translation methods was used:

METHOD 1: Two independent translations are completed. An independent third party, with some knowledge of survey research methods, adjudicates the differences. A professional translator translates the final version back into the source language.

METHOD 2: A translator translates into the target language, and an independent translator back-translates into the source language. An independent third party with knowledge of survey methods reviews and revises the translation as necessary.

Interviewers are instructed to follow the interview script and may not deviate from the translated language.

Interviewer Training

Interviewers participated in standard Gallup training, which includes – among other things – the following topics:

    a. research ethics, protecting respondents' confidentiality, staying safe while in the field
    b. introductions: starting the interview
    c. reading survey questions as on the questionnaire
    d. handling questions from respondents
    e. closed-end items and open-end items
    f. read and rotate
    g. skip patterns
    h. probing
    i. respondent selection
    j. household selection and substitution (for face-to-face countries)

Fieldwork

All fieldwork took place between Jan. 13 and March 26, 2018. Interviews were conducted face-to-face at respondents' homes in countries where telephone penetration is not sufficient to conduct interviews by phone, including Bangladesh, Chile, Colombia, Greece, Kenya and Vietnam. Interviewers used Computer-Assisted Personal Interviewing (CAPI) devices to record data from in-person interviews in the field. In countries where interviewing was conducted by telephone – including Japan, South Korea, the United Kingdom and the United States – both landline and mobile phone exchanges were included in the sample.

The country-specific sections beginning on page 14 offer more specific details about the fieldwork and sampling in each country.

Quality Control

In-field validations were performed by interviewing supervisors/validators:
-   A minimum of 30% of completed face-to-face interviews was validated using accompanied interviews, in person re-contacts or telephone re-contacts.
-   A minimum of 15% of completed telephone interviews was validated by either listening to interviews live or listening to recorded interviews.

Sampling

Face-to-Face Sampling Plan

First Stage: Stratification and Primary Sampling Units

In countries where face-to-face surveys were conducted (Bangladesh, Chile, Colombia, Greece, Kenya and Vietnam), sampling units were stratified by population size and/or geography, and clustering was achieved through one or more stages of sampling. Where population information was available, sample selection was based on probabilities proportional to population size, otherwise, simple random sampling was used. Between 150 and 200 ultimate clusters were selected for each country.

Second Stage: Household Selection

Random route procedures were used to select sampled households. In each ultimate cluster, the supervisor or field manager pre-selected a starting point/address for the interviewer. Once the interviewer reached the starting point, he or she followed strict rules to determine the households he or she would visit to attempt an interview.

Definition of a Household: All interviews took place at a person's home, which can be anything from a one-room flat to a single house. To be eligible, a household had to have its **own cooking facilities**, which could be anything from a standing stove in the kitchen to a small fire in the courtyard.

Movement From the Starting Point: Once at the given starting point, the interviewer placed his or her **back** to the (main) entrance of the structure and moved to the right (rule: *always go to the right*). Counting **three** households (excluding the starting point), the interviewer attempted a contact at the third household (main household). Unless an outright refusal occurs, interviewers may make up to three attempts to survey the household.

After visiting this first main household, the interviewer continued to select the third household to the right, and so on. If the interviewer was not successful in completing an interview at a selected household, it was replaced with another household using the same procedure.

The interviewer was instructed to count individual households and not houses, and not to count unoccupied structures. Group quarters (institutions and other group living arrangements such as rooming houses, dormitories and military barracks) were excluded from this survey.

8
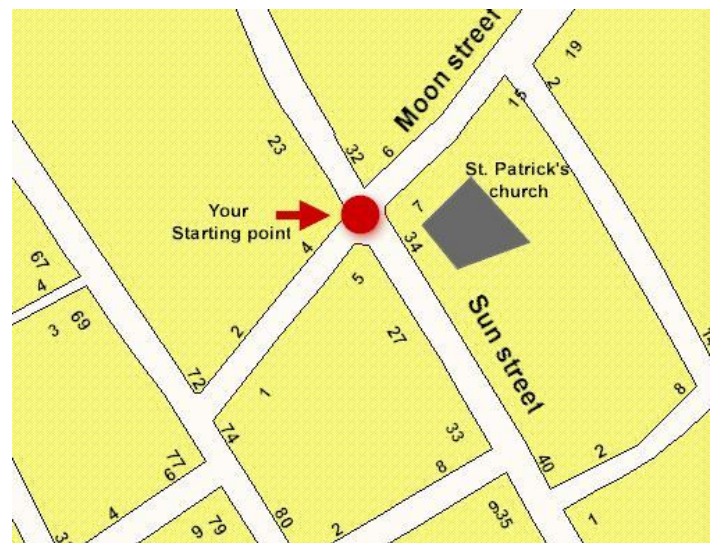
Third Stage: Respondent Selection

The interviewer's next step was to randomly select the respondent within the household. The interviewer listed all household members aged 18 and older who live in the household. The CAPI (Computer-Assisted Personal Interviewing) system then randomly selected the household member to be interviewed.

If the selected respondent was temporarily unavailable, the interviewer would revisit the household at another time. If the selected respondent refused to take part in an interview or was unavailable for the remainder of the field period, the household is replaced with another household (following the random route procedure).

Telephone Sampling Plan

In countries where interviews were conducted by telephone (Japan, South Korea, United Kingdom and the United States), a dual sampling frame was used (landline and mobile telephone).

For respondents contacted by landline telephone, random respondent selection within the household (among eligible respondents aged 18 and older) is performed by asking for the person aged 18 and older who has the next birthday.

Interviewers made at least three attempts to reach a potential respondent, spread over different days and times of the day.

Data Weighting

Data weighting is used to ensure samples are nationally representative for each country and is intended to be used for calculations within a country.

First, Gallup constructs base-sampling weights to account for household size. Weighting by household size (number of residents aged 18 and older) is used to adjust for the probability of selection, as residents in large households will have a disproportionately lower probability of being selected for the sample.

Second, to ensure the sample is projectable to the target population, post-stratification weights are constructed to correct for non-response. Population statistics are used to weight the data by gender, age, and, where reliable data are available, education or socioeconomic status.

Margin of Error

Gallup calculates approximate study design effect and margin of error. The design effect calculation reflects the influence of data weighting and does not incorporate intra-class correlation coefficients. The maximum margin of error is calculated based on reported proportions for each country-level dataset, assuming a 95% confidence level. Because these surveys are a clustered sample design, the margin of error varies by the question, and if the data user is making decisions based on the margin of error, he or she should consider inflating the margin of error.

Other errors that can affect survey validity include measurement error associated with the questionnaire, such as translation issues, and coverage error, where a part of the target population has a zero probability of being selected for the survey.

Recoded Survey Variables

Gallup data analysts have added recoded education, income and employment variables to the final data set to facilitate demographic and cross-country analysis. These variables are coded as follows.

Education

Different countries have various ways of classifying education levels. Gallup created two broad variables denoting educational attainment across countries, with one variable consisting of five educational categories (D3A) and the other variable representing three educational categories (D3B). The categories of the variables include:

D3A
- **No formal education**
- **Some/completed basic education:** Generally consistent with attending or completing primary education
- **Some/completed secondary education:** Respondent has some or complete secondary education
- **Post-secondary education:** Respondent has some post-secondary education, but did not attain a four-year University degree
- **Completed Bachelor's degree or more:** Generally equivalent to a 4-year university degree or Bachelor's degree

D3B
- **Completed primary/basic education or less:** Up to eight years of basic education
- **Some secondary to some tertiary education:** Completed some secondary education up to three years of tertiary education, nine to 15 years of education total
- **Completed Bachelor's degree or more:** Generally equivalent to a 4-year university degree or Bachelor's degree

Note that in some countries, sample sizes for certain educational categories may be very low (for instance, in the U.S., only 21 respondents said they had an educational attainment level of "primary education or less"). Analysts should be mindful of these type of factors when using these recoded variables.

Income

To provide household income measurements, Gallup asked respondents two questions. The first question asked respondents about their monthly household income in local currency before taxes. Respondents were instructed to include all income from all wages and salaries in the household, remittances from family members living elsewhere, and all other sources. If the respondents hesitated to answer or had difficulty answering the first question, they were presented with a set of income ranges in their local currency and are asked which group they fall into.

- *What is your total MONTHLY household income in (country), before taxes? Please include income from wages and salaries, remittances from family members living elsewhere, farming, and all other sources.*
- *(If don't know or refused, ask:) Would you say your total MONTHLY household income is _____ ?*

Estimates for respondents answering the second income question are computed using hot-deck imputation, but restricting imputing values to the reported range. Estimates for respondents who did not answer either income question are imputed using the same method, with no restriction of range. In this imputation process, each missing value is replaced with an observed value from another unit that has characteristics similar to the missing unit.

After imputation of income ranges and missing values, income data were annualised and per capita annual income was calculated by dividing household income by the total number of persons living in the household. Per capita annual income was used to create income deciles within each country data set.

Employment

Gallup classified respondents into one of six categories of employment based on a respondent's combination of answers to a series of questions about employment.

- **Employed Full Time for an Employer:** A respondent is considered employed full time for an employer if he or she is employed by an employer and if he or she works for this employer for at least 30 hours per week.
- **Employed Full Time for Self:** Respondents are considered employed full time for themselves if they are self-employed and if they work for at least 30 hours per week.
- **Employed Part Time, Do Not Want to Work Full Time:** Respondents who work either for an employer or themselves and do not work more than 30 hours per week at either job are categorised as employed part-time. Additionally, when asked, these respondents indicated that they do not want to work more than 30 hours per week.
- **Employed Part Time, Want to Work Full Time:** Respondents who work either for an employer or themselves and do not work more than 30 hours per week at either job are categorised as employed part-time. Additionally, when asked, these respondents indicated that they do want to work more than 30 hours per week.
- **Unemployed:** A respondent is unemployed if he/she reports not being employed in the last seven days, either for an employer or for himself or herself. The respondent must also report actively looking for a job in the past four weeks AND being able to begin work in the last four weeks.
- **Out of the Workforce:** Respondents who are out of the workforce were not employed within the last seven days, either for an employer or for themselves, are not looking for work, AND/OR are not available to start work. Respondents may be full-time students, retired, disabled or homemakers; however, some respondents will not fall into any of these scenarios.

Gallup also calculated employment indexes – unemployment, underemployment, employed full time for an employer and labour force participation rate – which are comparable to traditional employment metrics.

- **Unemployment (EMP_UNEMP):** The Gallup Unemployment Rate is the percentage of respondents in the workforce who are not employed, who have been actively looking for work within the last four weeks, AND who say they would have been able to begin work in the last four weeks. Gallup's unemployment measure is comparable to BLS and International Labour Organization unemployment calculations.
- **Underemployment (EMP_UNDER):** The Gallup Underemployment Index measures the percentage of respondents in the workforce who are working at desired capacity and those who are working at less than desired capacity. A respondent is 'employed' if he or she is employed full time OR if he or she is working part-time but does not want to work full time. Respondents are 'underemployed' if they are employed part-time but want to work full time OR if they are unemployed.
- **Employed Full Time for an Employer (EMP_FTEMP):** The Gallup Employed Full Time for an Employer Index measures the percentage of the workforce that is employed full time for an employer. A respondent is classified as employed by an employer if he or she works at least 30 hours per week for an employer.
- **Employed Full Time for an Employer — Percentage of Population (EMP_FTEMP_POP):** This index measures the percentage of the population that is employed full time by an employer. Similar to EMP_FTEMP, it is calculated based on the respondents who are employed full time for an employer at least 30 hours per week. However, rather than calculating a percentage based on the workforce, this index is calculated based on the total population.
- **Labour Force Participation Rate (EMP_LFPR):** The Labour Force Participation Rate Index is a measure of the percentage of the adult population that is part of the workforce. This includes people who are unemployed, as they desire to be active members of the workforce.

Financial Security

To understand better a person's overall financial health, Gallup created the Financial Security measure, which classifies respondents into three categories based on their responses to a series of survey questions regarding debt and savings. Specifically, the Financial Security measure is based on the following questions:

- Suppose you lost your income and had to survive only on your savings or things you could sell. How long would you be able to cover ALL of your basic needs, like food, housing, and transportation? Less than one month or more than one month?
- *(If the respondent said "more than one month" in the previous item)* Again, suppose you lost your income and had to survive only on your savings or things you could sell. Would you be able to cover ALL of your basic needs, like food, housing, and transportation for 1-3 months, 4-6 months, or more than 6 months?
- Do you, personally, owe any money to a financial institution, such as a bank or a credit card company? This could be money you owe for things like a loan or other types of debt.
- Do you, personally, owe money to another person?
- *(If respondent owes money either to a financial institution or a person and is actively paying the debt back)* Does making payments to pay back the money you owe make it very difficult, somewhat difficult, or not at all difficult for you to pay for the other things you need?

Three levels of Financial Security are developed:

- **Financially Insecure:** Respondents who said they had less than a month of savings or assets OR said their debt made it "very difficult" to pay for other things.
- **Financially Stretched:** Neither Insecure nor Secure.
- **Financially Secure:** Respondents who said they had more than six months of savings and, if they have debt, paying back that debt is "not at all difficult".

Financial Control

The survey includes 10 questions that were designed to measure different aspects of a person's financial control. To understand a person's overall level of financial control, Gallup created a financial control metric, which provides a count of how many of the 10 questions listed below respondents answered "positively." Notably, a "positive" response in this context does not necessarily mean an affirmative answer; this depended on the context of the question (in the below table, the "positive" response to each question is highlighted in green). Though each of the financial control questions was asked in a binary manner – with the explicit answer choices of "yes," or "no," – respondents could also volunteer the response of "do not know".

SURVEY ITEMS

Question	Response
Do you think that no matter what you do, your financial future will stay the same?	Yes No
Do you think you can overcome any financial problem that you might face?	Yes No
If you had a financial emergency today, do you think you would be able to pay for it?	Yes No
Do you have people in your life who can help you financially if you ever need it?	Yes No
When you spend money on something you don't need, do you usually regret the decision later?	Yes No
Have you tried to save money in the past, but have not been able to?	Yes No
Do you avoid thinking about how you are going to pay for things in the future?	Yes No
Do you enjoy planning what you are going to do with your money in the future?	Yes No
Are you satisfied with how much input you have in financial decisions in your household?	Yes No
Do you think you will ever be able to pay back all the money you owe?	Yes No

In this financial control metric, all positive responses are assigned a value of 1, while non-negative responses are assigned a value of 0. Respondents are then assigned an overall count value between 0 and 10.

Note that for two questions (financial decisions in household and ability to pay back the money you owe), not all respondents were asked these items as these questions did not apply to everyone. Given the nature of why these respondents were not asked these questions, it was logical to impute these missing responses as "positive responses," with one exception: respondents who said they currently had debt of some kind but were not currently paying the loan back, were not asked the question about expectation of paying back the debt, as this did not mean that the loan was not a 'threat' to one's financial security. Respondents of this type were considered as giving a "non-positive" response (i.e. coded 0).

Respondents who answer between 8-10 items positively (or about one standard deviation above the overall sample average) are considered as having the highest level of financial security.

Country-Specific Methodology Notes

BANGLADESH

Number of interviews: 1,500

Interviewing dates: Feb. 12 to March 6, 2018

Survey languages: Bengali

Mode: Face-to-face CAPI

Geographic exclusions: Due to an adverse law and order situation, four districts were excluded: Rangamati, Khagrachhari, Bandarban (hilly districts from Chittagong division) and Gaibandha (Rangpur division). The excluded areas represent approximately 3% of the population.

Sampling:

The sampling frame was stratified by geographic region and urbanicity, resulting in a total of 21 strata groups. They represent all seven divisions of Bangladesh: Dhaka, Chittagong, Khulna, Rajshahi, Rangpur, Sylhet, and Barishal. Within each division, the sample was further divided into the following urbanicity groups: Division Headquarters (these large towns are the administrative hubs for each of the country's seven divisions), Municipal Centres (smaller towns, which are mainly district towns and Thanas), and rural areas/villages. In Bangladesh, approximately one-fourth of the population resides in urban centres (Division Headquarters or Municipal Centres), and three-fourths of the population resides in rural areas/villages.

A total of 85 primary sampling units (PSUs) were allocated to strata groups proportional to population estimates, and random selection methods (probability proportionate to population size) were used to select the specific number of PSUs within each strata group. In Division Headquarters (DHQ) single stage sampling was performed (wards). In Municipal Centers (MC) and rural areas, two stages of sampling were performed. Within each division, MCs were selected as PSUs and wards were selected as SSUs (secondary sampling units). In rural areas, Thana were selected as PSUs, and two villages were selected within each Thana (SSUs).

Weighting: Survey data were weighted by number of adults in the household (to adjust for selection probability), gender, age, education, region, and urbanicity.

Design effect due to weighting[a]: 1.32

Margin of error (including design effect due to weighting)[b]: 2.9 percentage points

a) The design effect calculation reflects the weights and does not incorporate the intra-class correlation coefficients. Calculation: n*(sum of squared weights)/[(sum of weights)*(sum of weights)].
b) The margin of error is calculated around a proportion at the 95% confidence level. The maximum margin of error was calculated assuming a reported percentage of 50% and takes into account the design effect. Margin of error calculation: $\sqrt{(0.25/N)}*1.96*\sqrt{(DE)}$.

CHILE

Number of interviews: 1,504

Interviewing dates: Feb. 9 to March 26, 2018

Survey languages: Spanish

Mode: Face-to-face CAPI

Geographic exclusions: Remote areas of Antarctica, Easter Island and the Juan Fernández Islands were excluded. The excluded areas represent less than 1% of the population of the country.

Sampling:

The sampling frame was stratified by geographic region and *communa* Size, resulting in a total of 18 strata groups. They represent four regions of Chile: North, South, Central, and RM. Within each region, the sample was further divided into *communa* size groups: *Communas* 200,000+, 100,000 to 199,999, 20,000 to 99.999, 10,000 to 19,999, and under 10,000.

Two stages of selection were performed. A total of 106 *communas* were selected at the first stage of sampling. *Communas* 200,000 and larger were selected with certainty. *Communas* under 200,000 were randomly selected (proportionate to population size) within their respective strata group. Blocks were selected at the second stage of sampling. A total of 188 secondary sampling units (SSU) were selected.

Weighting: Survey data were weighted by number of adults in the household (to adjust for selection probability), gender, age, education and region.

Design effect due to weighting[a]: 1.38

Margin of error (including design effect due to weighting)[b]: 3.0 percentage points

a) The design effect calculation reflects the weights and does not incorporate the intra-class correlation coefficients. Calculation: n*(sum of squared weights)/[(sum of weights)*(sum of weights)].
b) The margin of error is calculated around a proportion at the 95% confidence level. The maximum margin of error was calculated assuming a reported percentage of 50% and takes into account the design effect. Margin of error calculation: $\sqrt{(0.25/N)}*1.96*\sqrt{(DE)}$.

COLOMBIA

Number of interviews: 1,504

Interviewing dates: Feb. 22 to March 20, 2018

Survey languages: Spanish

Mode: Face-to-face CAPI

Geographic exclusions: None

Sampling:

The sampling frame was stratified by population size, resulting in a total of six strata groups: Areas with pop = 1 million or more, areas 500,000 to 999,999, areas 100,000 to 499,999, areas 50,000 to 99,999, areas 10,000 to 49,999, areas under 10,000.

Two stages of selection were performed. A total of 116 Municipalities were selected at the first stage of sampling and randomly selected (proportionate to population size) within their respective strata group. At the second stage of selection, *manzanas* were selected in urban areas and *veredas* were selected in rural areas using simple random sample. A total of 188 secondary sampling units (SSU) were selected.

Weighting: Survey data were weighted by number of adults in the household (to adjust for selection probability), gender, age, education and region.

Design effect due to weighting [a]: 1.51

Margin of error (including design effect due to weighting) [b]: 3.1 percentage points

a) The design effect calculation reflects the weights and does not incorporate the intra-class correlation coefficients. Calculation: n*(sum of squared weights)/[(sum of weights)*(sum of weights)].
b) The margin of error is calculated around a proportion at the 95% confidence level. The maximum margin of error was calculated assuming a reported percentage of 50% and takes into account the design effect. Margin of error calculation: $\sqrt{(0.25/N)}*1.96*\sqrt{(DE)}$.

GREECE

Number of interviews: 1,500

Interviewing dates: Feb. 21 to March 24, 2018

Survey languages: Greek

Mode: Face-to-face CAPI

Geographic exclusions: None

Sampling:

The sampling frame was stratified by geographic region and urbanicity, resulting in a total of 26 strata groups. They represent the following regions of Greece: Eastern Macedonia/Thrace, Central/West Macedonia, Epirus/Ioannina, Thessaly, Stereá Elláda, West Greece, Peloponnese, Attica, Aegean and Crete. Within each region, the sample was also divided into urban and rural areas.

Single stage sampling was performed. 150 PSUs (Primary Sampling Units) were allocated to strata groups proportional to population estimates. Random selection methods (probability proportionate to population size) were used to select the specific number of PSUs within each strata group.

Weighting: Survey data were weighted by number of adults in the household (to adjust for selection probability), gender, age, education and region.

Design effect due to weighting [a]: 1.23

Margin of error (including design effect due to weighting) [b]: 2.8 percentage points

a) The design effect calculation reflects the weights and does not incorporate the intra-class correlation coefficients. Calculation: n*(sum of squared weights)/[(sum of weights)*(sum of weights)].
b) The margin of error is calculated around a proportion at the 95% confidence level. The maximum margin of error was calculated assuming a reported percentage of 50% and takes into account the design effect. Margin of error calculation: $\sqrt{(0.25/N)}*1.96*\sqrt{(DE)}$.

JAPAN

Number of interviews: 1,507

Interviewing dates: Feb. 7 to March 13, 2018

Survey languages: Japanese

Mode: Landline and Mobile Telephone

Geographic exclusions: Landline random-digit dialling (RDD) excluded 12 municipalities near the nuclear power plant in Fukushima. These areas were designated as not-to-call districts due to the devastation from the 2011 disasters. The exclusion represents less than 1% of the population of Japan.

Sampling:

The sample included half landline RDD telephone numbers and half mobile RDD telephone numbers.

To create the landline sample, the first six digit numbers of 10-digit telephone numbers were used (per the Ministry of Internal Affairs & Communications) and the last four digits were randomly defined. Unused telephone numbers were removed by mechanical check (Auto Caller Check/ACC). Landline phone numbers were stratified by prefecture; the number of landline numbers used in each geographical area was proportional to the number of households.

To create the mobile telephone sample, the first six digit numbers of 11-digit telephone numbers were used (per the Ministry of Internal Affairs & Communications) and the last five digits were randomly defined. Unused telephone numbers were removed by mechanical check (Auto Caller Check/ACC). Mobile telephone numbers were in a single strata group.

Weighting: Survey data for landline interviews were weighted by number of adults in the household, and weights were adjusted for dual users of landline and mobile telephone (to adjust for selection probability); data were also weighted by gender, age, education and region.

Design effect due to weighting[a]: 1.43

Margin of error (including design effect due to weighting)[b]: 3.0 percentage points

a) The design effect calculation reflects the weights and does not incorporate the intra-class correlation coefficients. Calculation: n*(sum of squared weights)/[(sum of weights)*(sum of weights)].
b) The margin of error is calculated around a proportion at the 95% confidence level. The maximum margin of error was calculated assuming a reported percentage of 50% and takes into account the design effect. Margin of error calculation: $\sqrt{(0.25/N)}*1.96*\sqrt{(DE)}$.

KENYA

Number of interviews: 1,500 interviews

Interviewing dates: Feb. 15 to March 1, 2018

Survey languages: Swahili/Kiswahili and English

Mode: Face-to-face CAPI

Geographic exclusions: The following areas were excluded due to accessibility and/or security issues: Mandera county, Wajir county, Marsabit county, Baringo county, and Garissa county (except for some areas in Garissa and Lagdera district). The excluded areas represent approximately 8% of the population.

Sampling: The sampling frame was stratified by geographic region and population size, resulting in a total of 19 strata groups. They represent the following provinces of Kenya: Central, Coastal, East, Nairobi, Northeast, Nyanza, Rift Valley and West. Within each region, the sample was further divided into the following population size groups: Areas with pop = 1 million or more, areas 500,000 to 999,999, areas 100,000 to 499,999, areas 50,000 to 99,999, areas 10,000 to 49,999, areas under 10,000.

Single-stage sampling was performed. 150 PSUs (Primary Sampling Units) were allocated to strata groups proportional to estimates of the 18+ population. Random selection methods (probability proportionate to population size) were used to select the specific number of PSUs within each strata group.

Weighting: Survey data were weighted by number of adults in the household (to adjust for selection probability), gender, age, education and region.

Design effect due to weighting[a]: 1.53

Margin of error (including design effect due to weighting)[b]: 3.1 percentage points

a) The design effect calculation reflects the weights and does not incorporate the intra-class correlation coefficients. Calculation: n*(sum of squared weights)/[(sum of weights)*(sum of weights)].
b) The margin of error is calculated around a proportion at the 95% confidence level. The maximum margin of error was calculated assuming a reported percentage of 50% and takes into account the design effect. Margin of error calculation: $\sqrt{(0.25/N)}*1.96*\sqrt{(DE)}$.

SOUTH KOREA

Number of interviews: 1,503 interviews

Interviewing dates: Jan. 31 to March 23, 2018

Survey languages: Korean

Mode: Landline and Mobile Telephone

Geographic exclusions: None

Sampling:

The sample included 40% landline RDD telephone numbers and 60% mobile RDD telephone numbers.

Landline and mobile telephone RDD sample was created using Korea Telecom's dedicated area codes of landline numbers and exchanges of mobile numbers, and randomly assigning the remainder of the digits. Landline telephone numbers were stratified by area code (which represent each main city and each province). (For variance estimate purposes, some groups were combined for the adequate sample in each group.) Mobile telephone numbers were in a single strata group. Numbers were partly pre-screened to remove non-working, business numbers, and fax numbers.

Weighting: Survey data for landline interviews were weighted by number of adults in the household, and weights were adjusted for dual users of landline and mobile telephone (to adjust for selection probability); data were also weighted by gender, age, education and region.

Design effect due to weighting[a]**:** 1.51

Margin of error (including design effect due to weighting)[b]**:** 3.1 percentage points

a) The design effect calculation reflects the weights and does not incorporate the intra-class correlation coefficients. Calculation: n*(sum of squared weights)/[(sum of weights)*(sum of weights)].
b) The margin of error is calculated around a proportion at the 95% confidence level. The maximum margin of error was calculated assuming a reported percentage of 50% and takes into account the design effect. Margin of error calculation: $\sqrt{(0.25/N)}*1.96*\sqrt{(DE)}$.

UNITED KINGDOM

Number of interviews: 1,500 interviews

Interviewing dates: Feb. 5 to March 16, 2018

Survey languages: English

Mode: Landline and Mobile Telephone

Geographic exclusions: None

Sampling:

The sample included 45% landline RDD telephone numbers and 55% mobile RDD telephone numbers.

Landline and mobile telephone RDD samples were created using the Official Numbering Plan for the U.K. Landline phone numbers were stratified by nuts 2 classification in each country – England, Wales, Scotland, Northern Ireland – and the number of landline numbers in each geographic area was proportional to the population. Mobile telephone numbers were in a single strata group and drawn representative of the major providers.

Weighting: Survey data for landline interviews were weighted by number of adults in the household, and weights were adjusted for dual users of landline and mobile telephone (to adjust for selection probability); data were also weighted by gender, age and education.

Design effect due to weighting[a]: 1.45

Margin of error (including design effect due to weighting)[b]: 3.1 percentage points

a) The design effect calculation reflects the weights and does not incorporate the intra-class correlation coefficients. Calculation: n*(sum of squared weights)/[(sum of weights)*(sum of weights)].
b) The margin of error is calculated around a proportion at the 95% confidence level. The maximum margin of error was calculated assuming a reported percentage of 50% and takes into account the design effect. Margin of error calculation: $\sqrt{(0.25/N)}*1.96*\sqrt{(DE)}$.

UNITED STATES

Number of interviews: 1,508 interviews

Interviewing dates: Feb. 1 to March 11, 2018

Survey languages: English and Spanish

Mode: Landline and Mobile Telephone

Geographic exclusions: None

Sampling:

The sample included 30% landline RDD telephone numbers and 70% mobile RDD telephone numbers.

Landline list-assisted and mobile telephone RDD samples were created. Landline telephone numbers were stratified by U.S. census region and by time zone within region. Mobile telephone numbers were in a single strata group.

Weighting: Survey data are weighted to adjust for selection probabilities. In addition, Gallup weights the data to match targets from the U.S. Census Bureau by age, sex, region, gender, education, ethnicity, and race, as well as population density of self-reported location. Gallup also weights the data to match national targets of phone status such as cell phone only, landline only and dual user.

Design effect due to weighting[a]: 1.46

Margin of error (including design effect due to weighting)[b]: 3.0 percentage points

a) The design effect calculation reflects the weights and does not incorporate the intra-class correlation coefficients. Calculation: n*(sum of squared weights)/[(sum of weights)*(sum of weights)].
b) The margin of error is calculated around a proportion at the 95% confidence level. The maximum margin of error was calculated assuming a reported percentage of 50% and takes into account the design effect. Margin of error calculation: $\sqrt{(0.25/N)}*1.96*\sqrt{(DE)}$.

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VIETNAM

Number of interviews: 1,540 interviews

Interviewing dates: Jan. 13 to Feb. 1, 2018

Survey languages: Vietnamese

Mode: Face-to-face CAPI

Geographic exclusions: Eleven provinces (out of 63) were excluded from the frame because of social unrest and concerns for safety. The excluded areas represent approximately 19% of the population.

Sampling:

The sampling frame was stratified by geographic region and urbanicity, resulting in a total of 11 strata groups. They represent the following regions of Vietnam: Central Highlands, Mekong River Delta, North Central and Central Coast, Northeast, Northern Highlands, Red River Delta, Southeast. Within Mekong River Delta, North Central and Central Coast, Red River Delta, and South East regions, the sample was further divided into Municipalities/Provincial Cities and Districts.

Two-stage sampling was performed. Districts were selected in the first stage of sampling: 75 PSUs (Primary Sampling Units) were allocated to strata groups proportional to population estimates. Random selection methods (probability proportionate to population size) were used to select the specific number of PSUs within each strata group. Within each PSU, two Secondary Sampling Units (SSUs) were selected within using simple random selection. A total of 150 ultimate clusters were selected.

Weighting: Survey data were weighted by number of adults in the household (to adjust for selection probability), gender, age, education and urbanicity.

Design effect due to weighting[a]: 1.40

Margin of error (including design effect due to weighting) [b]: 3.0 percentage points

a) The design effect calculation reflects the weights and does not incorporate the intra-class correlation coefficients. Calculation: n*(sum of squared weights)/[(sum of weights)*(sum of weights)].
b) The margin of error is calculated around a proportion at the 95% confidence level. The maximum margin of error was calculated assuming a reported percentage of 50% and takes into account the design effect. Margin of error calculation: $\sqrt{(0.25/N)}*1.96*\sqrt{(DE)}$.

Methodology of Data Analysis

Predictors of Financial Security

For the analysis, the statistical model focused on identifying the predictors of financial security at the country level.

This analysis focused on determining the best predictors of the two extreme points of financial security, i.e. being secure or insecure. Given this objective, binary logistic regressions were implemented.

In light of findings from the literature review as well as an exploratory analysis of the data, it was concluded that modelling should occur at the country level to best control for country-specific effects, rather than modelling the pooled data. A core set of independent variables were used in each model, although, in some instances, variables, such as education, needed to be recoded in slightly different ways (as was most suitable for each country).

Overall, the models consisted of the following independent variables:

- Count measure of Financial Control questions (out of 10)
- Gender
- Age
- Educational attainment (number of categories varied according to country)
- Employment status (4 categories – 1) employed full-time for an employer, 2) employed full-time for self or part-time optionally, 3) underemployed or unemployed or 4) out of the workforce)
- Survey item Q19 – confidence in financial institutions (recoded to produce binary options, with respondents either saying they had the confidence or not answering in this manner)
- Survey item Q23 – ever used services of a financial institution or bank (recoded to produce binary options, with respondents saying they have used such services or not answering in this manner)
- Survey item Q25 – ever used a mobile phone for certain financial activities (recoded to produce binary options, with respondents saying they used such services or not answering in this manner)
- Survey item Q35 – a test of a person's ability to calculate or comprehend an interest rate (recoded to produce binary options, with respondents answering correctly or not providing a correct answer)
- Whether a person lives in an urban or rural area
- The region of the country a respondent resides in (in some countries, recoding was used to combine sparsely populated areas)
- Income quintiles
- Being married or not (those living in a domestic partnership are counted, for the purposes of this analysis, as married)
- Whether a person has children or not (in Kenya, this variable was expanded to indicate if a person has 1,2,3,4 or 5+ children)

While all models were significant at the 95% confidence level, the individual significance-level of predictors included in the final report of the study in some instances uses the 90% confidence level for testing statistical significance.

Appendix 1

Final Questionnaire

For a detailed description of these questions and the demographic variables, please refer to the "List of study variables", available for download with the microdata from the survey.

Survey Item	Question-Wording	Response Options
Q1	If you were in trouble, do you have relatives or friends you can count on to help you whenever you need them, or not?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q2	Now, I would like to ask you a few questions about yourself. In general, do you worry a lot?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q3	Now, I would like to ask you a few questions about yourself. In general, do you see the good in most situations?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q4	Now, I would like to ask you a few questions about yourself. In general, do you think a lot about your future goals?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q5	Now, I would like to ask you a few questions about yourself. In general, do you think a lot about things before you do them?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q6	Who in your household makes final decisions about inexpensive everyday purchases, such as food for the household? You, someone else, or do you make final decisions with someone else? (*asked of respondents living in households with 2 or more people*)	1=You, 2=Someone else, 3=You make final decisions with someone else, 98=(DK), 99=(Refused)
Q7	Who in your household makes final decisions about more expensive purchases for your household? You, someone else, or do you make final decisions with someone else? (*asked of respondents living in households with 2 or more people*)	1=You, 2=Someone else, 3=You make final decisions with someone else, 98=(DK), 99=(Refused)
Q8	Are you satisfied with how much input you have in financial decisions in your household? (*asked of respondents living in households with 2 or more people*)	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q9	Have there been times in the past 12 months when you or other members of your household went without: Enough food to eat?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q10	Have there been times in the past 12 months when you or other members of your household went without: Medicines or medical treatment?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q11	Suppose you lost your income and had to survive only on your savings or things you could sell. How long would you be able to cover ALL of your basic needs,	1=Less than one month, 2=More than one month, 97=(I have no savings or things I could sell), 98=(DK), 99=(Refused)

	like food, housing, and transportation? Less than one month or more than one month?	
Q12	Again, suppose you lost your income and had to survive only on your savings or things you could sell. Would you be able to cover ALL of your basic needs, like food, housing, and transportation for less than one week or more than one week? (*asked of respondents who said they could survive for less than one month*)	1=Less than one week, 2=More than one week, 98=(DK), 99=(Refused)
Q13	Again, suppose you lost your income and had to survive only on your savings or things you could sell. Would you be able to cover ALL of your basic needs, like food, housing, and transportation for 1-3 months, 4-6 months, or more than 6 months? (*asked of respondents who said they could survive for more than 1 month*)	1=1-3 months, 2=4-6 months, 3=More than 6 months, 98=(DK), 99=(Refused)
Q14	Do you, personally, owe any money to a financial institution, such as a bank or a credit card company? This could be money you owe for things like a loan or other types of debt.	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q15	Do you, personally, owe any money to another person?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q16	Please think about any money you owe to a person or a financial institution. Do you have to make payments to pay back any of the money you owe? (*asked of those who have debt*)	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q17	Does making payments to pay back the money you owe make it very difficult, somewhat difficult, or not at all difficult for you to pay for the other things you need? (*asked of those who have debt*)	1=Very difficult, 2=Somewhat difficult, 3=Not at all difficult, 98=(DK), 99=(Refused)
Q18	Do you think you will EVER be able to pay back all the money you owe?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q19	In (Country), do you have confidence in financial institutions or banks, or not?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q20	Do you think a person like you could use: A bank to take out a loan?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q21	Do you think a person like you could use: A bank account to save money?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q22	Do you think a person like you could use: A mobile phone to transfer money?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q23	Have you, personally, ever used any services provided by a bank or other financial institution?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q24	Overall, do you think that using the services of a bank or other financial institution improves your life?	1=Yes, 2=No, 98=(DK), 99=(Refused)

Q25	Do you use a mobile phone to transfer funds between banks or accounts, deposit or withdraw funds, buy things or pay bills? This does NOT include calling someone using a mobile phone to do these things on your behalf.	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q26	Do you think that using a mobile phone to transfer funds between banks or accounts, deposit or withdraw funds, buy things or pay bills improves your life?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q27	Please answer the following questions about yourself. Do you think that no matter what you do, your financial situation will stay the same?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q28	Please answer the following questions about yourself. Do you think that you can overcome any financial problem that you might face?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q29	Please answer the following questions about yourself. If you had a financial emergency today, such as a medical emergency, do you think you would be able to find the money to pay for it?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q30	Please answer the following questions about yourself. Do you have people in your life who can help you financially if you ever need it?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q31	Please answer the following questions about yourself. When you spend money on something you don't need, do you usually regret the decision later?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q32	Please answer the following questions about yourself. Have you tried to save money in the past, but have not been able to?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q33	Please answer the following questions about yourself. Do you avoid thinking about how you are going to pay for things in the future?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q34	Please answer the following questions about yourself. Do you enjoy planning what you are going to do with your money in the future?	1=Yes, 2=No, 98=(DK), 99=(Refused)
Q35	Suppose you need to borrow 100 (country currency). Which is the LOWER amount to pay back: 105 (country currency) or 100 (country currency) plus three percent? Please respond the best you can. If you are unsure or don't know how to respond, just say so.	1=105 (country currency), 2=100 (currency currency) plus three percent, 98=(DK), 99=(Refused)

Appendix 2

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